## Flood stages during January, 1923.

River and station.	Flood stage.	Above flood stages—dates.		Crest.	
		From-	То-	Stage.	Date.
ATLANTIC DRAINAGE.					
Santee: Rimini, S. C.	Feet.	] 3	8	Feet. 13. 2	5-6
Do	12	12	12	12.4	12
Do Ferguson, S. C	12 12	26 4	30 14	13. 1 12. 9	29 8
Do.	12	28	(1)	12.5	30-31
Oconee: Milledgeville, Ga	22	24	25	23, 2	25
Ocmulgee: Macon, Ga	18	24	24	18.0	24
Abbeville, Ga	11	31	(1)	11.4	31
EAST GULF DRAINAGE.					
Apalachicola: River Junction, Fla	12	27	27	12.1	- 27
Blountstown, Fla	15	26	31	16. 5	27
Tombigbee: Lock No. 4, Demopolis, Ala Black Warrior:	39	25	(1)	47. 1	29
Lock No. 10, Tuscaloosa, Ala	46	24	25	17.0	24
Pearl: Jackson, Miss.	20	25	(1)	22. 5	30
MISSISSIPPI DRAINAGE.					
Evansville, Ind	35 33	30 30	(1) (1)	36. 2 33. 5	31 31
Green: Lock No. 6, Ky	30 33	24 23	26 (1)	31. 7 41. 3	25 26
Lock No. 4, Ky	.34	26	(1)	39. 0	31
Black Rock, Ark	14 14	22 31	27 (1)	16. 7 16. 0	23 31
Cache: Patterson, Ark.	9	29	(1)	10.2	31
Sulphur: Ringo Crossing, Tex		31	31	20.1	31
COLUMBIA BASIN DRAINAGE.					
Columbia:				[ [	
Vancouver, Wash	15	7	12	19.0	10
Eugene, Oreg.	10	1	1	11.2	17
Do	10 20	6 7	9 10	18,0 30,0	7 8
Salem. Oreg.	20	7	10	31.0	8
Albany, Oreg. Salem, Oreg. Oregon City, Oreg. Portland, Oreg.	12	2	13	19.2	9
Portland, Oreg	15	7	13	25, 3	9
Hendricks Bridge, Oreg	14	7	7	14.4	7
Santiam: Jefferson, Oreg	10	6	9	18, 5	7
				1 1	
Yamhill: McMinnville. Oreg Clackamas:	35	6	10	43.1	7

<sup>1</sup> Continued into February.
2 Said to have been higher.

## MEAN LAKE LEVELS DURING DECEMBER, 1922.

By United States Lake Survey.

[Detroit, Mich., January 6, 1923.]

The following data are reported in the "Notice to Mariners" of the above date:

Data.	Lakes.*				
	Superior.	Michigan and Huron.	Erie.	Ontario.	
Mean level during December, 1922: Above mean sea level at New York Above or below—	Feet.	Feet.	Feet.	Feet.	
	602. 08	579. 15	571. 13	244, 64	
Mean stage of November, 1922  Mean stage of December, 1921  Average stage for December, last 10	-0.27	-0.39	0. 28	-0. 51	
	+0.09	-0.39	0. 58	-0. 19	
years	-0.30	-1.02	0. 70	-0.89	
	-1.05	-3.43	2. 40	-2.97	
	+0.88	+0.15	+0. 27	+1.21	
Average relation of the December level to—		-0.20	-0.20	-0.20	
November level		+0.20	+0.10	0.00	

<sup>\*</sup> Lake St. Clair's level: In December, 574.12 feet.

## MEAN LAKE LEVELS DURING JANUARY, 1923.

By United States Lake Survey.

[Detroit, Mich., February 5, 1923.]

The following data are reported in the "Notice to Mariners" of the above date:

	Lakes.*			
Data.	Superior.	Michigan and Huron,	Erie.	Ontario.
Mean level during January, 1923: Above mean sea level at New York Above or below—	Feet.	Feet.	Feet.	Feet.
	601. 86	579. 02	571. 17	244. 50
Mean stage of December, 1922  Mean stage of January, 1922  Average stage for January, last 10	-0. 22	-0. 13	+0.04	-0.14
	+0. 27	-0. 29	-0.33	-0.23
years	-0. 26	-0.99	-0.58	-0.99
	-0. 92	-3.65	-2.38	-3.10
	+0. 98	-0.06	+0.21	+0.70
Average relation of the January level to— December, 1922, level February, 1923, level		-0. 10 0. 00	0.00 +0.10	+0.10 0.00

<sup>\*</sup>Lake St. Clair's level: In January, 573.70 feet.

## EFFECT OF WEATHER ON CROPS AND FARMING OPERATIONS: JANUARY, 1923.

By J. WARREN SMITH, Meteorologist.

January, 1923, was unusually favorable for outdoor operations in nearly all sections of the country as the weather was generally mild for the season except in the more Northeastern States. It was especially warm throughout the month in the central trans-Mississippi States and lower Great Plains where the monthly mean temperatures were 10° or more above normal. Considerable rain fell from the lower Mississippi Valley northeastward and precipitation was slightly above normal in the extreme upper Mississippi Valley, the northwestern Lake region, the central Plateau districts of the West, and along the north Pacific coast. Rainfall was very light in the extreme Southeast and in the southern Great Plains, considerable sections of the latter area receiving practically none. Heavy snowfall occurred in the central Plateau districts, and the Northeast from northern Pennsylvania and northern New Jersey northeastward.

Wheat fields were bare of snow throughout the month in the principal winter wheat belt, except for a light covering in the northern portion. Owing to continued mild weather, however, wheat suffered no material damage and remained in satisfactory condition, except where drought persisted in the western portion of the belt. The crop was in uncertain condition in western Kansas, as much of it had not come up and deterioration was reported in central and western Oklahoma and northwestern Texas because of lack of moisture. The snowfall was beneficial for winter grains in the central Plateau districts of the west and in the far Northwest, while the fields were amply protected by snow in the more northern States. Conditions were generally favorable for winter grains in the south Atlantic and east Gulf districts. Some spring oats were seeded as far north as southeastern Kansas near the close of the month.

The weather was favorable for the growth of truck crops in California and the Gulf coast sections, except that there was a lack of moisture in parts of Texas. Some frost damage occurred locally in the interior of Florida on the 17th, and part of the month was rather too dry for truck in portions of that State. Conditions were favorable for handling and marketing tobacco in the Ohio Valley and South Atlantic States. At the close